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Fungal nomenclature

4. Letter of concern regarding Props. (117–119) to amend the ICBN to require pre-publication deposit of nomenclatural information

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Note: The proposals referenced in the title (Hawksworth & al. Taxon 59: 656–666, 2010: "Proposals to make the pre-publication deposit of key nomenclatural information in a recognized repository a requirement for valid publication of organisms treated as fungi under the Code") refer to Article 37Bis (new) in McNeill and Turland (Taxon 60: 268 2011: "Synopsis of proposals on botanical nomenclature – Melbourne 2011: A review of the proposals concerning the International Code of Botanical Nomenclature submitted to the XVIII International Botanical Congress).

In November and December of 2010, biodiversity informaticians representing the IPNI partners met to discuss design requirements for planned enhancements to IPNI. One area that this group examined was possible design requirements for IPNI that would arise from the pre-publication deposit of botanical names. In this context, the group examined the proposal before the Botanical Congress for pre-publication deposit of mycological names. Without taking a position on whether or not the Congress should adopt this proposal, the IPNI technical team would like to express a concern about the exact language of the proposal. The issue that we have with the mycological pre-publication deposit proposal as it stands is that there are *two* important points in time - when the data are submitted to the recognized repository and when the publication is effective which are not adequately addressed by the proposal.

The proposal for mycological pre-publication deposit (117) specifies, in part:

> **37bis.1.** For organisms treated as fungi under this Code (Pre.7), from 1 January 2013 the citation of an identifier issued by a recognized repository (Art. 37bis.3) in the protologue is an additional requirement for valid publication.
>
> **37bis.2.** For an identifier to be issued by a recognized repository as required by Art. 37bis.1, the minimum elements of information that must be accessioned by author(s) of scientific names are those required for valid publication under Art. 32.1 (b–e).

37bis.1 imposes a requirement that the author obtain the identifier from the repository before the process of publishing the work containing the name is complete. This means that the peer review process, changes to the work made as the result of peer review, editorial changes, and changes to the proofs of the work may occur between the time at which the author obtained the identifier and the time the work was published.

37bis.2, however, requires that the author deposit all the items of information required by Art. 32.1 (b–e) with the recognized repository in order to obtain an identifier. These two requirements mean that in some cases the protologue, containing the information required by Art 32.1(b-e) held by the repository in association with the identifier, will not be the same as the information that was published with this identifier. Should such a case occur, it is not clear which of the two versions of the information is definitive, the version held by the recognized repository, or the version that appeared as part of the protologue in the published work. Although an author or an editor can make additions/corrections to the information in the repository post-publication, there is no guarantee that this will take place.

We suggest the inclusion of language that specifies which version of the protologue and information associated with the identifier is definitive. We further suggest that the information found in the actual published work at the time of publication should be considered definitive, and that the version of the information deposited in the recognized repository should be annotated to reflect such changes, with the information held in the repository following a "principle of eventually consistent". The actual date of publication is something that won't be known to the repository as a fact until after publication occurs, and thus can only be added to the information in the repository after the identifier is issued. We further suggest that in order to ensure that the author's intent is carried out, the name associated with the identifier in the repository must be identical to the name associated with the identifier in the published work.

We suggest consideration of the following amendments:

> In 117, 37bis.1 substitute "the" for "an" after "the citation of" and add the phrase "for the name" after "repository", so that the text reads "...the citation of the identifier issued by a recognized repository for the name (Art.37bis.3) in the..."

> In 117 37bis.2, add a phrase after "(b-e)", ", when accessioned and published information for an identifier differ, the published information shall be considered definitive."

We further suggest insertion of the following recommendation:

> The author of a manuscript should request identifiers for names proposed in that manuscript after peer review has been concluded and the manuscript has been accepted for publication.

Below are 6 examples of possible discrepancies between the information held in a recognized repository and that found in a published work, with our comments on interpretation under the pre-publication deposit proposal as it stands and our suggestions for resolution of uncertainty.

Case 1: Two new names are published by an author in a work, but the identifiers for each are transposed, so that the protologue for one contains the identifier for the other and vice versa.

A logical interpretation of the pre-publication deposit proposal is that neither name is validly published, as neither contains in its protologue the identifier for the name that was issued by the recognized repository. Another logical interpretation is that both names are validly published. This, however, is not explicit. The discrepancy creates uncertainty. The author's intent becomes unclear, and analysis of the names and the etymology of the names as represented in the protologue becomes necessary (e.g., did the author switch the identifiers or the names). Requiring the identifier to link identical names in the publication and the recognized repository would make invalidity explicit. This situation would require emendation of the publication and deposit of new names. The previous, now unused, unavailable, but still effectively published names should simply be recorded in the repository as invalid.

The pre-publication deposit proposal describes a requirement that only authors, not publishers, be able to obtain identifiers from repositories, in order to ensure that new names are created only by the intent of authors. Our proposal to replace "an" with "the" follows exactly on this reasoning - if the name and identifier match in both the repository and the publication, then the author's intent is clear. If they don't match, then the author's intent is unclear.

Case 2: Two new names are published by an author in a work, but the identifier for one name is repeated in the protologue of the second (so that both protologues contain the same identifier, but the protologues and names are different).

The pre-publication deposit proposal would appear to make the name where the information held by the repository matches the published information to be validly published, and the other name not validly published. Another interpretation is that both names are validly published. This however is not

explicit. The author's intent becomes unclear. Requiring the identifier to link identical names in the publication and the recognized repository would make invalidity of publication explicit. Requiring the identifier to link identical names would require emendation of the publication and deposit of a new name. The previous, now unused, unavailable, but still effectively published name should simply be recorded in the repository as invalid.

Case 3: A peer reviewer points out that a name is incorrectly formed or became preoccupied in the time between the request for the identifier from the recognized repository by the author and the time of publication, and the author changes the name in the publication such that the name associated with the identifier in the repository is not the same as the name associated with the identifier in the publication.

A reasonable interpretation of the pre-publication deposit proposal would suggest that the name is validly published, however, an equally valid interpretation would be that the name is not validly published. Requiring the identifier to link identical names in the publication and the recognized repository would make it explicit that this name is not validly published. This situation would require emendation of the publication and deposit of a new name. The previous, now unused, unavailable, but still effectively published name should simply be recorded in the repository as invalid.

Case 4: An author obtains an identifier for a new name, and after this, a peer reviewer suggests substantive changes to the form and content of the protologue. The author changes the protologue in the work, and publishes the work with the name and identifier found in the recognized repository, but with the associated information differing between the published work and the copy of the information in the repository.

The pre-publication deposit proposal does not address this discrepancy. Making the version of the associated information that appears in print the definitive version would clarify this situation. Thus the data in the repository could be appropriately edited. A logical recommendation following from a definitive print version is that authors have a responsibility for ensuring that the data in the repository are updated to match the definitive print version.

Case 5: An author obtains an identifier for a new name, and after this a correction is made to the accession number of the holotype appearing in the protologue. The author changes the protologue in the work, and publishes the work with the name and identifier found in the recognized repository, but with the associated information concerning the holotype differing between the published work and the copy of the information in the repository.

The pre-publication deposit proposal does not address this discrepancy. Making the version of the associated information that appears in print the

definitive version would clarify this situation. Thus the data in the repository could be appropriately edited.

Case 6: An author obtains an identifier for a new name, and after this in the publication process a typographic error is made altering the accession number of the holotype appearing in the protologue. The published work thus contains the name and identifier found in the recognized repository, but with the associated information concerning the holotype differing between the published work and the copy of the information in the repository.

The pre-publication deposit proposal does not address this discrepancy. Making the version of the associated information that appears in print the definitive version would mean that the incorrect type is specified, but the record of the discrepancy and the annotated changes in the associated information in the recognized repository could provide evidence that the published work did not reflect the author's intent should the author be unable to correct the published work.

Sincerely,

Members of the IPNI biodiversity informatics team:

Jim Croft (ANBG),
Nicky Nicolson (Kew),
James A. Macklin (HUH; now DAO),
Paul J. Morris (HUH),
Greg Whitbread (ANBG)

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